

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/004712 A1

(51) International Patent Classification⁷: **A61B 5/00** 97279 Jerusalem (IL), NAGAR, Ron [IL/IL]; 32 Frug Street, 63417 TEL-AVIV (IL).

(21) International Application Number: **PCT/IL2004/000619** (74) Agents: FENSTER, Paul et al.; Fenster & Company, Intellectual Property 2002, P. O. BOX 10256, 49002 Petach Tikva (IL).

(22) International Filing Date: 9 July 2004 (09.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:
60/485,403 9 July 2003 (09.07.2003) US

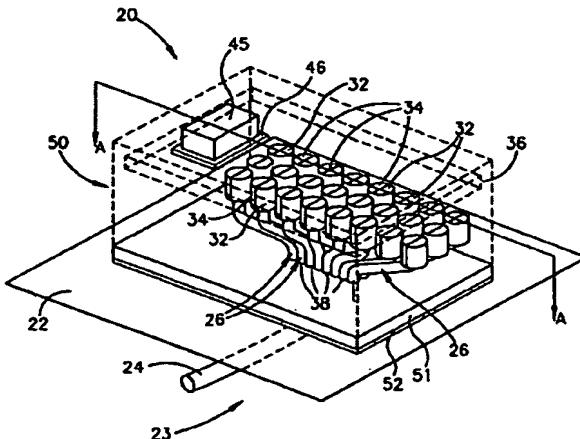
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

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(54) Title: WEARABLE GLUCOMETER



WO 2005/004712 A1

(57) **Abstract:** Apparatus for assaying an analyte in blood in a blood vessel below a patient's skin comprising: at least one light source controllable to transmit light into tissue below the skin through at least one first region on the skin; at least one light detector that receives a portion of the transmitted light that reaches at least one second region on the skin after propagating through the blood vessel and generates signals responsive to the received light; and a controller; wherein the controller controls the at least one light source to transmit light at least one wavelength that interacts with blood and at least one wavelength that interacts with the analyte and uses the signals responsive to the light that interacts with the blood to determine a location for the blood vessel and the determined location and signals responsive to the light to assay the analyte.

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